IN THE CLAIMS:

These claims will replace all prior versions of claims in the present application.

Claim 1 (Currrently Amended) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of ~~said~~ each of the processing modules~~module~~ to the other processing modules in the information processing system;

allowing each of the processing modules to receive at lease one second list composed of values transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

allowing each of the processing modules to compare ~~the~~ values of the second list with ~~the~~ values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a~~the~~ value of the first list by one~~,~~ when a~~said~~ value of the second list is identical to the~~said~~ value of the first list.

Claim 2 (Currrently Amended) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list ~~which is~~ composed of pairs of a value and a~~the~~ number of value stored in the memory of ~~said~~ each of the processing modules~~module ,~~ to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list ~~which is~~ composed of the pairs of value and the number of value transmitted to ~~said~~ each of the processing modules~~module ,~~ from the other processing modules~~module~~;

allowing each of the processing modules to compare ~~the~~ values of the second list with ~~the~~ values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a~~the~~ value of the first list by the number of the values corresponding to a~~the~~ value of the second list, when the~~said~~ value of the second list is identical to the~~said~~ value of the first list.

Claim 3 (Currrently Amended) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of ~~said~~ each of the processing modules~~module~~ to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of values transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

allowing each of the processing modules to compare ~~the~~ values of the second list with ~~the~~ values of the first list; and

allowing each of the processing modules to increase the count of a~~the~~ value of the first list that~~, which~~ ranks immediately next to a~~the~~ value of the second list, by one, when the~~said~~ value of the first list ranks lower than the~~said~~ value of the second list.

Claim 4 (Currrently Amended) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list~~, which is~~ composed of pairs of a value and a~~the~~ number of value stored in the memory of ~~said~~ each of the processing modules~~module ,~~ to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list ~~which is~~ composed of the pairs of a value and the number of value transmitted to ~~said~~ each of the processing modules~~module ,~~ from the other processing module;

allowing each of the processing modules to compare ~~the~~ values of the second list with ~~the~~ values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a~~the~~ value of the first list ranked immediately next to a~~the~~ value in the second list by the number of the values corresponding to the value of the second list, when the~~said~~ value of the first list ranks lower than the~~said~~ value of the second list.

Claim 5 (Currrently Amended) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an

information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of ~~said~~ each of the processing modules~~module~~ to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of values transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

allowing each of the processing modules to cancel a value of the second list when the~~said~~ value of the second list exists in the first list,~~,~~ and, when ~~the~~ identical values exist in two or more second lists, allowing each of the processing modules to cancel the value of one or more second lists that~~, which~~ appear later among the two or more second lists; and

allowing each of the processing modules to increase a counter corresponding to a~~the~~ value of the first list that~~, which~~ ranks immediately next to the value of the second list, by one, when the~~said~~ value of the first list ranks lower than the~~said~~ value of the second list.

Claim 6 (Currrently Amended) The information processing method according to Claim 1~~any one of Claims 1 to 5~~, wherein each of the processing modules stores table-format data represented by an array of records including field values contained in an information field in the memory in a form of a value list in which the field values are stored in order of field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and

wherein said list composed of the values is said value list that~~, which~~ constructs the table-format data.

Claim 7 (Currently Amended) An information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmittingwhich transmits a first list composed of values stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a means for receivingwhich receives at least one second list composed of values transmitted to said each of the processing modulesmodule, from the other processing modulesmodule;

a means for comparingwhich compares the values of the second list with the values of the first list; and

a means thatwhich, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by one.

Claim 8 (Currently Amended) An information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmittingwhich transmits a first list which is composed of pairs of a value and athe number of value stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a means for receiving~~which receives~~ at least one second list ~~which is~~ composed of the pairs of values and the number of value transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

a means for comparing~~which compares the~~ values of the second list with ~~the~~ values of the first list; and

a means that~~which~~, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by a~~the~~ number of the values corresponding to the identical value of the second list.

Claim 9 (Currently Amended) An information processing system that~~which~~ includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting~~which transmits~~ a first list composed of values stored in the memory of ~~said~~ each of the processing modules~~module~~ to the other processing modules in the information processing system;

a means for receiving~~which receives~~ at least one second list composed of values transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

a means for comparing~~which compares the~~ values of the second list with ~~the~~ values of the first list; and

a means that~~which~~, when a value that~~which~~ ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that~~,~~ ~~which~~ ranks immediately next to the value of the second list, by one.

Claim 10 (Currently Amended) An information processing system that~~which~~ includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting~~which transmits~~ a first list~~, which is~~ composed of pairs of a value and a~~the~~ number of value stored in the memory of ~~said~~ each of the processing modules~~module,~~ to the other processing modules in the information processing system;

a means for receiving~~which receives~~ at least one second list ~~which is~~ composed of the pairs of value and the number of value transmitted to ~~said~~ each of the processing modules ~~module,~~ from the other processing modules~~module~~;

a means for comparing~~which compares the~~ values of the second list with ~~the~~ values of the first list; and

a means that~~which~~, when a value that~~which~~ ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list by the number of the values corresponding to the value of the second list.

Claim 11 (Currently Amended) An information processing system that~~which~~ includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting~~which transmits~~ a first list composed of values stored in the memory of ~~said~~ each of the processing modules~~module~~ to the other processing modules in the information processing system;

a means for receiving~~which receives~~ at least one second list composed of values transmitted to ~~said~~ each of the processing modules~~module,~~ from the other processing modules~~module~~;

a means that~~which~~, when a value of the second list exists in the first list, cancels the value of the second list, and, when ~~the~~ identical values exist in two or more second lists, cancels the value of one or more second lists that~~, which~~ appear later among the two or more second lists; and

a means that~~which~~, when a value that~~which~~ ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that~~, which~~ ranks immediately next to the value of the second list, by one.

Claim 12 (Currently Amended) The information processing system according to Claim 7~~ any one of Claims 7 to 11~~, wherein each of the processing modules comprises the memory that~~which~~ stores table-format data represented by an array of records including field values contained in an information field in a form of a value list in which the field values are stored in order of field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and

wherein said list composed of the values is the value list that~~, which~~ constructs the table-format data.

Claim 13 (Currently Amended) A program for embodying the following functions in an information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprisescomprising:

a function thatwhich transmits a first list composed of values stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a function thatwhich receives at least one second list composed of values transmitted to said each of the processing modules frommodule, the other processing modules;

a function thatwhich compares the values of the second list with the values of the first list; and

a function thatwhich, when a value of athe second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by one.

Claim 14 (Currently Amended) A program for embodying the following functions in an information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprisescomprising:

a function thatwhich transmits a first list which is composed of pairs of a value and athe number of value stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a function thatwhich receives at least one second list which is composed of the pairs of value and the number of value transmitted to said each of the processing modulesmodule, from the other processing modulesmodule;

a function thatwhich compares the values of the second list with the values of the first list; and

a function thatwhich, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by the number of the values corresponding to the value of the second list.

Claim 15 (Currently Amended) A program for embodying the following functions in an information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprisescomprising:

a function thatwhich transmits a first list composed of values stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a function thatwhich receives at least one second list composed of values transmitted to said each of the processing modulesmodule, from the other processing modulesmodule;

a function thatwhich compares the values of the second list with the values of the first list; and

a function thatwhich, when a value thatwhich ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that, which ranks immediately next to the value of the second list, by one.

Claim 16 (Currently Amended) A program for embodying the following functions in an information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprisescomprising:

a function thatwhich transmits a first list , which is composed of pairs of a value and athe number of value stored in the memory of said each of the processing modulesmodule, to the other processing modules in the information processing system;

a function thatwhich receives at least one second list which is composed of the pairs of value and the number of value transmitted to said each of the processing modulesmodule, from the other processing modulesmodule;

a function thatwhich compares the values of the second list with the values of the first list; and

a function thatwhich, when a value thatwhich ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list ranked immediately next to the value in the second list by the number of the values corresponding to the value of the second list.

Claim 17 (Currently Amended) A program for embodying the following functions in an information processing system thatwhich includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprisescomprising:

a function thatwhich transmits a first list composed of values stored in the memory of said each of the processing modulesmodule to the other processing modules in the information processing system;

a function thatwhich receives at least one second list composed of values transmitted to said each of the processing modulesmodule from other processing modulesmodule;

a function thatwhich, when a value of the second list exists in the first list, cancels the value of the second list, and, when the identical values exist in two or more second lists, cancels the identical value of one or more second lists that appears, which appear later among the two or more second lists; and

a function thatwhich, when a value thatwhich ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that, which ranks immediately next to the value of the second list, by one.

Claim 18 (Currently Amended) The program according to Claim 13any one of Claims 13 to 17, wherein said each of the processing modules comprises a memory thatwhich stores table-format data represented by an array of records including field values contained in an information field in a form of a value list in which the field values are stored in order of

field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and

wherein said list composed of the values is said value list that, ~~which~~ constructs the table-format data.

Claim 19 (Currently Amended) A computer-readable recoding medium having the program according to Claim 13~~any one of Claims 13 to 18~~ recorded thereon.